

DECORATIVE LIGHT SUPPORTING ASSEMBLY

BACKGROUND OF THE INVENTION

1. Field of the Invention

4 The present invention relates to a supporting assembly, and more
5 particularly to a decorative light supporting assembly with which light bulbs
6 may be supported and the assembly may be expanded as required.

2. Description of Related Art

8 A conventional decorative light support generally has a firmed structure
9 and thus the user is able to fix the decorative light support on a surface. However,
10 this decorative light support shows the decorative effect only in two-dimensional
11 coordinate. A vivid and three dimensional decorative effect is something which
12 needs to be introduced.

13 To overcome the shortcomings, the present invention tends to provide an
14 improved decorative light supporting system to mitigate the aforementioned
15 problems.

16 SUMMARY OF THE INVENTION

17 The primary objective of the present invention is to provide an improved
18 decorative light supporting assembly having a bonding element and multiple
19 support branches detachably connected to the bonding element such that after
20 the support branches are connected to and displayed on the bonding element, the
21 extension of the support branches vividly show a three dimensional pattern,
22 which increases the ornamental effect.

23 Another objective of the present invention is that a securing element is

1 provided to the decorative light supporting system to secure the bonding element
2 after the bonding element is rolled to form a circular body. Thus, the support
3 branches displayed on the bonding element extend in different directions relative
4 to the bonding element.

5 Other objects, advantages and novel features of the invention will
6 become more apparent from the following detailed description when taken in
7 conjunction with the accompanying drawings.

8 **BRIEF DESCRIPTION OF THE DRAWINGS**

9 Fig. 1 is an exploded perspective view of the light supporting assembly
10 of the present invention;

11 Fig. 2 is a schematic perspective view showing the connection between
12 the bonding element and the support branches;

13 Fig. 3 is a perspective view showing that the bonding element is
14 provided with multiple support branches;

15 Fig. 4 is a perspective view showing a different embodiment of the
16 support branch;

17 Fig. 5 is a perspective view showing the deformation of the bonding
18 element;

19 Fig. 6 is a schematic perspective view showing that a securing element is
20 used to secure the deformation of the bonding element so as to allow the support
21 branches to be extended in different directions;

22 Fig. 7 is a perspective view showing that after the deformation of the
23 securing element is secured, the support branches are extended to present a three

1 dimensional ornamental effect;

2 Fig. 8 is an exploded perspective view showing a different securing
3 element is applied to an embodiment of the bonding element;

4 Fig. 9 is a schematic perspective view showing the application of the
5 securing element to the deformed bonding element;

6 Fig. 10 is an exploded perspective view showing an embodiment of the
7 support branch;

8 Fig. 11 is an exploded perspective view of an embodiment of the support
9 branch;

10 Fig. 12 is a perspective view of an embodiment of the body of the
11 support branch; and

12 Fig. 13 is a perspective view showing the application of the decorative
13 light supporting assembly of the present invention.

14 **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

15 With reference to Fig. 1, the decorative light supporting assembly in
16 accordance with the present invention includes a bonding element (1), a support
17 branch (2) and a securing element (5) with an opening (51) defined therethrough.

18 The bonding element (1) is made of a resilient material and has multiple
19 V-like bodies (11) integrally formed with one another on the bonding element
20 (1). Every body (11) has two guiding tracks (12a,12b) formed on two distal ends
21 of the body (11). A first wing (13a) is formed on the right-most body (11) and has
22 a first rib (14a) formed on an inner face of the first wing (13a). A second wing
23 (13b) is formed on the left-most body (11) and has a second rib (14b) formed on

1 an inner face of the second wing (13b).

2 The support branch (2) includes a frame (21) with multiple fingers (211)
3 integrally formed in the periphery of the frame (21) and a connector (22) shaped
4 like an arrow and integrally formed on a tip of the frame (21) and having tracks
5 (221) defined in opposite side faces of the connector (22) to correspond to the
6 bodies (11) of the bonding element (1).

7 With reference to Figs. 2 and 3, it is noted that each connector (22) has a
8 dimension slightly smaller than a dimension of each body (11) such that each and
9 every one of the support branches (2) is able to engage with the bonding element
10 (11) by inserting the connectors (22) into a corresponding one of the bodies (11)
11 and sliding the guiding tracks (12a,12b) along the tracks (221). After the
12 connectors (22) are received in the bodies (11), the support branches (2) are
13 securely connected to the bonding element (1). Further, it is noted that the
14 connector (22) is inclined relative to the frame (21) such that when the support
15 branches (2) are connected to the bonding element (1), the frames (21) are close
16 to one another.

17 With reference to Fig. 4, it is noted that two cutouts (212) are
18 respectively defined in opposite side faces of each protrusion (211) such that a
19 bulb (3) with a clamp (4) and arms (41) are able to securely connect to the
20 protrusion (211) by engagement between the arms (41) to bottom faces defining
21 the cutouts (212).

22 With reference to Figs. 5 and 6 and still using Fig. 1 for reference, it is
23 noted that when the first wing (13a) and the second wing (13b) are engaged with

1 one another to expose the first rib (14a) and the second rib (14b), the
2 combination of the first rib (14a) and the second rib (14b) forms a stop (15).
3 When the securing element (5) is applied to cope with the deformed bonding
4 element (1), the first and second wings (13a,13b) as well as the stop (15) are
5 extended through the opening (51) and thus abutment of the stop (15) to a side
6 face defining the opening (51) secures the deformation of the bonding element
7 (1). Therefore, when the bonding element (1) is full of support branches (2) by
8 the manner as described earlier, application of the securing element (5) is able to
9 present a snow flake pattern, which is completely different from what is
10 disclosed in any of the existing art.

11 With reference to Figs. 8 and 9, it is noted that another embodiment of
12 the securing element (6) shows a top casing (61) and a bottom casing (62). The
13 top casing (61) has multiple legs (611) extending from peripheral edges of the
14 top casing (61) and a connecting hole (612) centrally defined in a bottom face of
15 the top casing (61). The bottom casing (62) has a connecting rod (621) centrally
16 extending from a bottom face of the bottom casing (62) and multiple extensions
17 (622) extending from peripheral edges of the bottom casing (62) to correspond to
18 the legs (611). When the securing element (6) in this embodiment is employed to
19 the assembly of the bonding element (1) and the support branches (2), the legs
20 (611) and the extensions (622) are respectively inserted into the bodies (11) of
21 the bonding element (1) from opposite sides of the bodies (11). The extension of
22 the connecting rod (621) into the connecting hole (611) is then able to secure
23 engagement between the top casing (61) and the bottom casing (62). Thus the

1 deformation of the bonding element (1) is secured and the snow-flake pattern is
2 presented.

3 With reference to Fig. 10, it is noted that the clamp (7) is securely
4 engaged with a side face of the body (2) and has a concave area (71) defined in
5 the clamp (7) to receive therein the bulb (3).

6 With reference to Fig. 11, it is noted that the support branch (2b) is
7 pyramidal and composed of a top portion (21b) and a bottom portion (22b). The
8 top portion (21b) has multiple apertures (211b) defined in corners of a bottom
9 face of the top portion (21b). The configuration of the bottom portion (22b)
10 corresponds to that of the top portion (21b) and has multiple rods (221b)
11 corresponding to the apertures (211b) of the top portion (21b). A cross (23) is
12 sandwiched between the top portion (21b) and the bottom portion (22b) and has
13 indentation (231) defined in distal ends of the cross (23) to correspond to the rods
14 (221b) and holes (232) defined in the cross (23). Therefore, insertion of the rods
15 (221b) into the corresponding apertures (211b) is able to secure the engagement
16 between the top portion (21b) and the bottom portion (22b).

17 With reference to Fig. 12 it is noted that the body (21c) has multiple
18 through holes (211c) defined through the body (21c).

19 With reference to Fig. 13, it is noted that no matter what kind of shapes
20 the body may become, after the support branches are connected to the bonding
21 element and the bonding element is deformed, the extension of the support
22 branches relative to the bonding element presents a pattern never seen in any of
23 the products.

1 It is to be understood, however, that even though numerous
2 characteristics and advantages of the present invention have been set forth in the
3 foregoing description, together with details of the structure and function of the
4 invention, the disclosure is illustrative only, and changes may be made in detail,
5 especially in matters of shape, size, and arrangement of parts within the
6 principles of the invention to the full extent indicated by the broad general
7 meaning of the terms in which the appended claims are expressed.